CLAIM LISTING

Please amend the application as follows:

Claims List:

1. (Currently Amended) A satellite life extension spacecraft (SLES), comprising:

a mechanical implement adapted for connection to a parent spacecraft, the parent spacecraft having a parent spacecraft center of mass and a connection point configured to receive the mechanical implement;

a thruster pod extension device;

a first thruster ~~pod~~ and a second thruster ~~pod~~ attached to the thruster pod extension device, the first thruster adapted for rotation; and

logic configured to launch the SLES from a launch vehicle, guide the SLES to the parent spacecraft, and dock the SLES with the parent spacecraft to create a combined spacecraft by attaching the mechanical implement to the connection point on the parent spacecraft, the logic further configured to calculate a combined spacecraft center of mass of the combined spacecraft and to calculate an angular rotation value for firing the first thruster based on the calculated combined center of mass~~the first pod positioned relative to the second pod such that a center of mass of a combined spacecraft comprising the satellite life extension spacecraft and the parent spacecraft can be determined relative to the first and second pod~~.

2. (Currently Amended) The spacecraft of claim 1, wherein the first and second thrusters ~~pods comprise a thruster~~are pivotally affixed to ~~the~~ a first and second thruster pod, each thruster ~~and~~ adapted for rotation about a rotational axis.

3. (Currently Amended) The spacecraft of claim 2, ~~further comprising~~wherein the logic is further configured to dynamically calculate the center of mass of the parent/child spacecraft when the mechanical implement is coupled to the ~~satellite~~connection point.

4. (Original) The spacecraft of claim 3, wherein the logic is further configured to calculate a first angle of rotation about the rotational axis corresponding to the center of mass calculated.

5. (Original) The spacecraft of claim 4, wherein the logic is further configured to detect a change in the center of mass and calculate a second angle of rotation about the rotational axis corresponding to the change in the center of mass.

6. (Original) The spacecraft of claim 1, wherein the thruster pod comprises at least one second thruster, the second thruster rigidly affixed to the thruster pod.

7. (Currently Amended) A ~~satellite~~ spacecraft positioning method, the method comprising the steps of:

launching a first spacecraft within docking distance of a second spacecraft, the second spacecraft having a first center of mass;

guiding the first spacecraft to the second spacecraft;

attaching the first spacecraft to the second spacecraft to obtain a combined spacecraft;

calculating a combined spacecraft center of mass ~~of a parent/child spacecraft~~, the combined spacecraft center of mass reflecting a change from the first center of mass;

calculating an angle of rotation of a thruster pod about a gimbal related to the combined center of mass calculated; and

changing the angle ~~or~~ of rotation of the thruster to reflect a change ~~in the center of mass~~from the first center of mass to the combined center of mass.

8. (Original) The method of claim 8, further comprising the steps of:

calculating a first firing direction and a first magnitude of force for a fixed thruster; and

calculating a second firing direction and a second magnitude of force for a gimbaled thruster.

9. (Original) The method of claim 8, wherein calculating the first firing direction and calculating the second firing direction are based upon the center of gravity calculated.

10. (New) A system, comprising:

a parent spacecraft comprising a connection device, the parent spacecraft having a first center of mass;

a child spacecraft comprising a capture tool such that the child spacecraft can be launched and attached to a connection point of the parent spacecraft when the parent spacecraft is in Geosynchronous orbit, the child spacecraft further comprising a first rotatable thruster and a controller, the controller configured to calculate a second center of mass when the child spacecraft is connected to the parent spacecraft and rotate the thruster based on the calculated second center of mass.

11. (New) The system of claim 10, wherein the child spacecraft comprises a thruster pod for housing the thruster.

12. (New) The system of claim 11, wherein the thruster pod is attached to an extendable boom configured to extend in order to compensate for various parent spacecraft sizes.

13. (New) The system of claim 12, wherein the child spacecraft comprises a plurality of thrusters and corresponding thruster pods, each thruster capable of rotation by the controller in order to compensate for the second center of mass when the controller connects the child spacecraft to the parent spacecraft.

14. (New) The system of claim 10, wherein the child spacecraft is configured to determine the center of mass of the parent spacecraft.

15. (New) The system of claim 14, wherein the child spacecraft is configured to determine the second center of mass based upon the first center of mass.

16. (New) The system of claim 15, wherein the child spacecraft further comprises an extendable boom having a first end and a second end.

17. (New) The system of claim 16, wherein the extendable boom is connected to the rotatable thruster at the first end and a second rotatable thruster at the second end.

18. (New) The system of claim 17, wherein the controller calculates a first angle corresponding to the first rotatable thruster and a second angle corresponding to the second rotatable thruster, the first and second angles calculated such that each thruster fires through the second center of mass.

19. (New) The system of claim 18, wherein the controller periodically recalculates the first and second angle of the first and second thrusters in order to correct for a change in center of mass based upon fuel usage.